

Date: Tue, 29 Jun 93 15:50:41 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #795
To: Info-Hams

Info-Hams Digest Tue, 29 Jun 93 Volume 93 : Issue 795

Today's Topics:

 Alinco DR-1200 and DJ-580 modifications (2 msgs)
 copper tube J pole
 FD ARRL Section List
 Field Day. A bummer!
Field Day = Contest Day = ARRL Double-Crosses us Again! (2 msgs)
 Ground Rods In Concrete
 Monthly Summary of Solar & Geophysical Activity for May 1993

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Tue, 29 Jun 1993 18:26:23 GMT
From: dog.ee.lbl.gov!hellgate.utah.edu!caen!spool.mu.edu!nigel.msen.com!well!moon!
pixar!news@network.UCSD.EDU
Subject: Alinco DR-1200 and DJ-580 modifications
To: info-hams@ucsd.edu

I did the intermod-reducing modification on my Alinco DR-1200 a few days ago.
It works very well - all of my intermod problems have disappeared.

The mod corrects an Alinco design mistake, in which they added clipping diodes
to the input of the first IF amplifier, which has an internal limiter and
doesn't need the clipping. A side effect was that the diodes mixed any strong
signals in the passband, which caused lots of intermod. A microscopic
surface-mount capacitor is removed to disconnect the diodes.

I also did the frequency-expansion mod, so that I could receive NOAA weather.

The publishers of the mod neglect to mention that after you cut the yellow wire, you must reset the radio. Do this by holding <F> and <VF0/M> down while turning the radio off and on. Memory contents will be lost.

I have found that the microphone from my Radio Shack 10-meter rig works fine on the DR-1200, even the remote-control buttons work.

I'd like to know: Could they have made the same design mistake on the DJ-580? Are there any intermod-reducing mods for that radio? I've done the frequency mods. I have severe problems with intermod when using the DJ-580 for public-service work with other stations nearby. Of course, most HTs have horrible intermod, so perhaps the only solution is to work crossband.

Thanks

Bruce Perens, KD60TD
Bruce@Pixar.com

Date: Tue, 29 Jun 1993 21:14:32 GMT
From: news.cerf.net!pagesat!olivea!spool.mu.edu!howland.reston.ans.net!
darwin.sura.net!rsg1.er.usgs.gov!resdgs1.er.usgs.gov!tbodoh@network.UCSD.EDU
Subject: Alinco DR-1200 and DJ-580 modifications
To: info-hams@ucsd.edu

In article <1993Jun29.182623.6366@pixar.com>, Bruce@Pixar.com (Bruce Perens) writes:

|>...
|> I'd like to know: Could they have made the same design mistake on the DJ-580?
|> Are there any intermod-reducing mods for that radio? I've done the frequency
|> mods. I have severe problems with intermod when using the DJ-580 for
|> public-service work with other stations nearby. Of course, most HTs have
|> horrible intermod, so perhaps the only solution is to work crossband.

--
It's possible. Apparently Alinco made a production change in the 580 sometime around March or April of this year which drastically reduces intermod. Early 580 owners have complained of excessive intermod but owners who have bought theirs since Dayton have commented that they haven't experienced any intermod. Mine is apparently one of the newer versions as I don't experience any intermod when in high RFI areas even using my new 'high gain' ANLI 800 duckie. I do not experience intermod in places which used to bother my Uniden BC200-XLT or my PRO-43 handheld scanners...

++++
+ Tom Bodoh - Sr. systems software engineer, NOX?? (in the mail) +

+ USGS/EROS Data Center, Sioux Falls, SD, USA 57198 (605) 594-6830 +
+ Internet; bodoh@dggs.cr.usgs.gov (152.61.192.66)

+

+ "Welcome back my friends to the show that never ends!" EL&P

+

+++++

Date: Tue, 29 Jun 1993 21:10:19 GMT

From: sdd.hp.com!col.hp.com!news.dtc.hp.com!hpsc.it.sc.hp.com!icon.rose.hp.com!

greg@decwrl.dec.com

Subject: copper tube J pole

To: info-hams@ucsd.edu

Perry Scott (perry@fc.hp.com) wrote:

: Greg Dolkas (greg@core.rose.hp.com) wrote:

:

: I solved the problem by coiling the coax into three 2" diameter loops

: just below the bottom of the J (assuming you have a mast). Then, tune

: for lowest SWR.

:

I tried this too. Made things worse :-(

: As a test, check the SWR while running your hand along 1/2 wavelength of

: the coax shield. If the SWR varies, you still have shield current. Try

: placing the coil a little further down.

Oooh, neat test. Thanks!

What I've currently done is to shorten the copper part of the J-pole *below* the J back to where the original plans had it (about 34"). This seems to have restored balance to the universe, and all is working more-or-less as it was. There probably still is some feedline radiation (I'll try your test), but it's not nearly the problem it seemed to have been before.

Now the question... Why does the length of the antenna below the J make a difference? My own theory (please correct me) is that this part resonates with the top part to make the antenna look more like a center-fed dipole with a funny matching section. At 34", plus about 5" between the bottom of the J and the feed point, it comes to about a 1/2 wavelength; one of those magical numbers.

At least it sounds plausible...

Greg KD6KGW

Date: Tue, 29 Jun 1993 21:39:12 GMT
From: netcomsv!netcom.com!steve@decwrl.dec.com
Subject: FD ARRL Section List
To: info-hams@ucsd.edu

In article <m2budaINNdt9@news.bbn.com>, levin@bbn.com (Joel B Levin) writes:
> adams@chuck.dallas.sgi.com (Charles Adams) writes:
>
> |6 EB LAX ORG SB SCV SDGO SF SJV SV PAC
>
> Prize goes to anyone who can identify the names of these sections. My
> first field day I had a heck of a time finding these sections in CT
> based on their spoken names (is it SCV? or SJV? or just SV?).

Yes ;-)

SCV - Santa Clara Valley
SJV - San Joquin Valley
SV - Sacramento Valley

73's de Steve KA6S (SM SCV ;-)

Date: Tue, 29 Jun 1993 15:11:24 GMT
From: netcomsv!netcom.com!netcomsv!bongo!julian@decwrl.dec.com
Subject: Field Day. A bummer!
To: info-hams@ucsd.edu

I talk at a lot of amateur radio clubs. So I get a good idea of what they are all about. It seems there are two topics at ham clubs:

1. What we are going to do on field day.
2. What we did on field day.

Seems that item one is club business until the end of June then item two takes over until December.

But to be fair, sometimes to relieve monotony they do sometimes discuss the other subject:

What's wrong with the club repeater and when are we going to fix it.

Sound like your local club?

--

Julian Macassey, G8LUK julian@bongo.tele.com Voice: (213) 653-4495
Paper Mail: 742 1/2 North Hayworth Avenue, Hollywood, California 90046-7142

Date: Tue, 29 Jun 93 19:58:21 GMT
From: agate!headwall.Stanford.EDU!nntp.Stanford.EDU!canada!paulf@ames.arpa
Subject: Field Day = Contest Day = ARRL Double-Crosses us Again!
To: info-hams@ucsd.edu

In article <C9E5HL.348@squam.banyan.com> dts@banyan.com (Daniel Senie) writes:
>On field day the bands are cluttered. During an actual emergency you might not
>get ideal band conditions. If you can learn how to pick through the noise and get
>the information the other station is sending, then you will be a MUCH better
>operator during an actual emergency when the pressure is on.

Make that *will* not get ideal band conditions. I spent the first five hours after the Loma Prieta Quake on HF, and we had one heck of time, running barefoot with big beams, trying to maintain a frequency. We had to compete with a number of well meaning Bozos running KW amps. A number of times the VHF op leaned over my shoulder to inquire how the heck I was able to pick calls out of that mess.

Contesters and DXers, given a modicum of extra training, make the best HF emergency ops.

--

-=Paul Flaherty, N9FZX | "The National Anthem has become The Whine."
->paulf@Stanford.EDU | -- Charles Sykes, _A Nation of Victims_

Date: Tue, 29 Jun 93 20:08:29 GMT
From: walter!porthos!prefect!mgsail@uunet.uu.net
Subject: Field Day = Contest Day = ARRL Double-Crosses us Again!
To: info-hams@ucsd.edu

In article <C9E5HL.348@squam.banyan.com> dts@banyan.com (Daniel Senie) writes:
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>get ideal band conditions. If you can learn how to pick through the noise and get
>the information the other station is sending, then you will be a MUCH better
>operator during an actual emergency when the pressure is on.

time I have avoided doing this without fail!

Yesterday I had a direct lightning hit on my Hy-Gain 18HT 50' vertical. It is mounted on three huge insulators set on pipes that go into a very big concrete "block". It has survived 85 mph winds although the top of the spire has a kink in it from when a tornado came over two years ago. The lightning not only went across the insulators and into the copper wire I have tied to the pipes above ground and over to six ground rods.....but it also followed the antenna into the ham shack and wiped out a rather substantial amount of equipment...jumped over to another AC path and went into some more of the house and took out the home entertainment room.

The concussion effect of the lightning rolling through the wall of the house on the RG-8 blew a rather substantial hole. A name brand lightning protector cartridge blew to pieces and it continued it's travel unaffected.

It welded a Drake R-4C/MS-4 speaker together that were sitting side by side on a shelf. A Pyramid PS-35 power supply exploded internally and the seams where the cabinet/panels fit are now welded to where I had to cut into it with a metal blade on my reciprocating saw! That is just the start of the damage.

The braided 10 G copper wires making up the ground system are blobs of copper now. The tops of three of the six rods are burned/melted off. The ground shows considerable disturbance around the rods. Had they been in the cement pod I think the antenna would be draped across the house! Oh...the antenna is about 14' from the buried telephone line/entrance. Guess what happened there! It arced (char marks on the side of the house show the path) and instead of going into the house it went back down the line to the telephone pole and blew a distribution box. So much for buried cable.

The fortunate thing for me is that I had pulled two 6' racks of mil spec and maritime receivers off line and off antenna and was rewiring the switching on them. They of course escaped unscathed. A laptop I use on packet/pactor is spread all over the radio room...pieces imbedded in the sheet rock walls.

Well the moral of all this is: Don't trust any protection device except total disconnection of antenna and AC power to your equipment!!! Also have insurance

that covers computers! (I lost three others besides the laptop.) And don't run a ground rod through your antenna base. 73, Frank K0JPJ ex-W5PVX QRT

* SPEED 1.20 [NR] * Fuse it or loose it! Ancient Tibetan/Pago Pago wisdom.

--- MsgToss 2.0d(beta) 12/17/92

* Origin: The 3WINKs [w3ink@w3ink.md] 301-590-9629 (1:109/418)

Unquote

--

Date: 29 Jun 93 20:49:08 GMT
From: news-mail-gateway@ucsd.edu
Subject: Monthly Summary of Solar & Geophysical Activity for May 1993
To: info-hams@ucsd.edu

-- MONTHLY REVIEW OF SOLAR AND GEOPHYSICAL ACTIVITY --
Summary for May 1993

Report compiled by the
Solar Terrestrial Dispatch
P.O. Box 357
Stirling, Alberta
T0K 2E0, Canada

Data Provided In-Part Courtesy of the
Space Environment Services Center, NOAA
and the
NRC / Dominion Radio Astrophysical Observatory
Penticton, British Columbia, Canada

MONTHLY ACTIVITY SUMMARY FOR MAY 1993

We are now in month 81 of solar cycle 22 (as of May 1993). There were 285 flares (optical and x-ray) in May. This is a drop of 14% over the number of flares observed in April. There were no major flares observed during the month, while five reached minor M-class levels.

A breakdown of the energetic events for the last four months follows below.

	MAY '93	APR '93	MAR '93	FEB '93
Major	0	1	4	2
Minor M-class	5	2	9	16
Class C or smaller	280	328	351	410
Total	285	331	364	428

The monthly sunspot number for May was 79.1 as computed by the

SESC. The preliminary RI international sunspot number for May was 61.2 which results in a smoothed sunspot number of 76.5 for October 1992.

The monthly 10.7 cm solar radio flux for May was 112.4 which results in a preliminary smoothed mean flux value of 130.5 for October 1992. The monthly mean solar flux adjusted to 1 AU was 114.9. The best absolute value of the estimated 10.7 cm solar radio flux for the month was 103.4 (Series D).

The largest x-ray flare of May was a class M4.4/2B tenflare from Region 7500 from N19W48 at 23:01 UT on 14 May. The flare was associated with major Types II and IV spectral radio sweeps, although the Type II had a relatively low estimated shock speed of only 600 km/sec. The tenflare measured 970 sfu and lasted 37 minutes. The x-ray signature of this event had an attractive long-decay signature typical of events capable of accelerating protons. Protons at greater than 10 MeV began arriving at 00:45 UT on 15 May and reached a maximum flux of approximately 3 to 4 pfu at 01:50 UT on 15 May. This region was rather small when it produced this flare (only 190 millionths) and had a DAI optical configuration. It was also in a state of gradual decay. It failed to produce any other M-class events before rotating out of view and dying behind the limb.

The list of minor M-class or greater flares and associated radio emissions observed during May follows:

SUMMARY OF MAJOR ENERGETIC EVENTS

Date	Begin	Max	End	Xray	Op	Region	Locn	2695 MHz	8800 MHz	15.4 GHz
NO MAJOR ENERGETIC EVENTS OBSERVED.										

SUMMARY OF MINOR M-CLASS EVENTS

Date	Begin	Max	End	Xray	Op	Region	Locn	2695 MHz	8800 MHz	15.4 GHz
07 May:	2020	2138	2230	M1.6	1B	7500	N14E41	140	40	67
14 May:	2154	2301	2328	M4.4	2B	7500	N19W48	970	340	190
27 May:	1745	1755	1802	M1.2	2B	7515	N12E53	65	46	46
28 May:	0255	0310	0322	M1.4				31	29	
30 May:	0505	0533	0547	M1.0	SF	7515	N16E18	180		

REGION FLARE STATISTICS

	C	M	X	S	1	2	3	4	Total	(%)
	--	--	--	--	--	--	--	--	---	-----
Region 7493:	1	0	0	5	0	0	0	0	005	(1.8)
Region 7494:	0	0	0	1	0	0	0	0	001	(0.4)
Region 7496:	15	0	0	34	0	0	0	0	034	(11.9)
Region 7497:	0	0	0	6	0	0	0	0	006	(2.1)
Region 7499:	0	0	0	3	0	0	0	0	003	(1.1)
Region 7500:	14	2	0	37	1	1	0	0	039	(13.7)
Region 7502:	0	0	0	1	0	0	0	0	001	(0.4)
Region 7504:	0	0	0	6	0	0	0	0	006	(2.1)
Region 7512:	0	0	0	13	0	0	0	0	013	(4.6)
Region 7513:	0	0	0	2	0	0	0	0	002	(0.7)
Region 7514:	1	0	0	8	0	0	0	0	008	(2.8)
Region 7515:	26	2	0	49	3	1	0	0	053	(18.6)
Region 7517:	0	0	0	1	0	0	0	0	001	(0.4)
Region 7518:	0	0	0	1	0	0	0	0	001	(0.4)
Uncorrellated:	52	1	0	2	0	0	0	0	112	(39.3)

The geomagnetic field in May was less active than in April. The estimated planetary A-index for May was 13, compared with 18 for April. This results in an estimated smooth value of 16.4 centered on October 1992. There were no sudden magnetic impulses observed at Boulder during May (unofficial).

The most disturbed day of the month was 10 May where the estimated planetary A-index was near 54 (major storm levels). Major to severe geomagnetic storming was reported from the middle and high latitude regions during this event. The source of the activity appeared to be a well-placed coronal hole. However, it may have been enhanced by an M-class flare-related CME that occurred on 07 May from Region 7500. This flare was associated with a Type IV sweep. This particular geomagnetic disturbance exhibited a strong recurrent tendency, extending back at least two solar rotations. Recent observations (Carrington Rotation 1870) seem to indicate that the same hole responsible for this disturbance has become an extension of the southern polar crown. It is expected to produce a similar enhancement in geomagnetic activity near the end of June or early July.

RECENT SOLAR INDICES (PRELIMINARY) OF THE OBSERVED MONTHLY MEAN VALUES Last Updated June 20, 1993

Sunspot Numbers					Radio Flux		Geomagnetic
-----					-----		-----
Observed	Ratio	Smooth	Values		Penticton	Smooth	Smooth
SESC	RI	RI/SESC	SESC	RI	10.7 cm	Value	Ap
-----					-----		-----

YEAR = 1989

Jan:	203.2	161.6	.80	189.2	141.9	235.4	190.2	19	16.7
Feb:	211.0	164.5	.78	196.0	144.7	222.4	194.0	15	17.0
Mar:	176.8	131.0	.74	204.1	149.4	205.1	199.7	41	17.6
Apr:	172.3	129.3	.75	209.9	153.1	189.6	204.4	23	18.2
May:	207.0	138.4	.67	216.4	156.5	190.1	209.3	16	18.8
Jun:	297.3	196.0	.66	220.1	157.9	239.6	213.1	17	19.2
Jul:	193.9	126.8	.65	221.1	158.1	181.9	212.6	8	19.1
Aug:	243.0	166.8	.69	221.5	157.4	217.1	209.7	20	19.3
Sep:	240.7	176.8	.74	221.3	156.3	225.9	207.2	17	18.8
Oct:	217.4	158.5	.73	223.2	157.1	208.7	206.3	21	18.3
Nov:	255.0	173.0	.68	223.4	157.3	235.1	206.1	19	18.4
Dec:	217.8	166.1	.76	217.3	153.3	213.0	203.3	16	18.4

YEAR = 1990

Jan:	239.3	177.3	.74	212.4	150.6	210.1	200.4	14	18.6
Feb:	184.7	130.5	.71	213.9	152.9	178.3	200.5	23	18.8
Mar:	198.6	140.3	.71	212.7	152.0	188.8	198.7	23	18.6
Apr:	196.1	140.3	.72	210.5	149.3	185.3	195.6	27	18.3
May:	187.7	132.2	.70	208.1	147.0	189.7	192.4	16	17.6
Jun:	168.9	105.4	.62	205.3	143.8	170.9	189.9	16	16.8
Jul:	204.3	149.4	.73	203.8	140.6	180.7	190.4	14	16.2
Aug:	269.4	200.3	.74	206.3	140.5	222.6	193.9	19	15.4
Sep:	186.4	125.2	.67	211.1	142.1	177.4	198.3	14	15.0
Oct:	219.0	145.5	.66	213.1	142.1	182.0	200.6	15	14.8
Nov:	196.1	131.4	.67	213.7	141.7	184.3	201.2	9	14.4
Dec:	208.0	129.7	.62	216.1	143.9	204.9	202.7	7	15.7

YEAR = 1991

Jan:	213.5	136.9	.64	220.5	147.6	229.4	205.5	8	17.4
Feb:	270.2	167.5	.62	221.5	147.6	243.0	206.3	10	18.4
Mar:	227.9	141.9	.62	220.7	146.6	230.0	205.9	27	19.1
Apr:	215.9	140.0	.65	220.7	146.5	198.8	206.8	17	20.0
May:	182.5	121.3	.66	219.6	145.5	190.3	207.1	18	21.7
Jun:	231.8	169.7	.73	218.9	145.2	206.8	207.4	44	23.0
Jul:	245.7	173.7	.71	219.5	146.3	212.0	207.7	27	23.6
Aug:	251.5	176.3	.70	218.3	146.5	210.3	206.8	30	24.7
Sep:	185.8	125.3	.67	214.2	144.7	180.6	203.9	20	25.0
Oct:	220.1	144.1	.65	208.4	141.6	201.3	199.7	31	24.3

Nov:	169.0	108.2	.64	202.2	137.9	172.0	195.4	33	24.1
Dec:	217.7	144.4	.66	193.7	131.6	223.9	188.9	15	23.0

YEAR = 1992

Jan:	217.9	149.3	.69	183.3	123.6	217.6	181.8	14	21.1
Feb:	238.2	159.6	.67	171.8	115.2	232.1	174.8	31	19.8
Mar:	160.5	106.9	.67	161.6	108.0	171.3	168.5	14	19.4
Apr:	144.0	99.8	.69	154.3	103.1	158.5	162.9	11	18.9
May:	106.3	73.8	.69	148.9	100.1	125.4	158.8	21	17.5
Jun:	104.7	65.2	.62	143.3	96.9	116.7	154.2	15	16.6
Jul:	121.4	85.7	.71	134.3	90.6	132.3	146.6	10	16.6
Aug:	99.5	64.5	.65	124.4	84.0	122.1	138.9	15	16.1
Sep:	93.8	63.9	.68	117.5	79.6*	116.8	133.7*	25	15.8*
Oct:	136.2	88.3	.65	113.4	76.5*	130.8	130.5*	15	16.4*
Nov:	124.3	92.0	.74			145.2		14	
Dec:	127.4	83.3	.65			139.1		13	

YEAR = 1993

Jan:	92.1	59.1	.64			121.0		17	
Feb:	126.1	90.5	.72			142.6		16	
Mar:	107.4	70.5*	.66*			136.4		21*	
Apr:	98.6	61.9*	.63*			115.9		18*	
May:	79.1	61.2*	.77*			112.4		13*	

* = Preliminary estimates, Unmarked = Final Values.

The lowest smoothed sunspot number for Cycle 21, RI = 12.3, occurred in September 1986. The sunspot maximum for this cycle (cycle 22) occurred in July 1989, with a peak smoothed sunspot number (RI) of 158.1.

Note: Prior to June 1991, the 10.7 cm solar radio flux measurements originated from the Algonquin Radio Observatory near Ottawa. From June 1991 onward, the flux has been (and will continue to be) measured from the Dominion Radio Astrophysical Observatory at Penticton, British Columbia, Canada.

DAILY VALUES OF SOLAR FLUX AT 2800 MHz (PENTICTON-DRAO) AT 2000 UT

Data Valid for May 1993

Data Courtesy of the National Research Council of Canada

Herzberg Institute of Astrophysics
 Dominion Radio Astrophysical Observatory
 Penticton, British Columbia
 CANADA

Series D is the best estimate of absolute value and is obtained by using the multiplier 0.90 recommended by Commission V of URSI.

1993	Observed	Adj to 1 AU	
	Series C	Series C	Series D
1	102.6	104.2	93.8
2	103.1	104.7	94.2
3	107.1	108.9	98.0
4	110.6	112.4	101.2
5	117.9	120.0	108.0
6	120.0	122.2	110.0
7	130.6	133.0	119.7
8	128.7	131.2	118.1
9	129.0	131.5	118.3
10	134.1	136.8	123.1
11	132.0	134.7	121.2
12	126.4	129.0	116.1
13	119.8	122.4	110.2
14	112.1	114.6	103.1
15	104.4	106.7	96.0
16	98.8	101.1	91.0
17	96.2	98.4	88.6
18	91.3	93.5	84.2
19	90.9	93.1	83.8
20	91.1	93.4	84.1
21	91.0	93.3	84.0
22	91.8	94.1	84.7
23	94.9	97.3	87.6
24	98.4	100.9	90.8
25	99.8	102.4	92.2
26	107.5	110.4	99.4
27	119.5	122.7	110.4
28	125.8	129.2	116.3
29	129.0	132.5	119.3
30	140.1	144.1	129.7
31	138.2	142.1	127.9
Mean:	112.4	114.9	103.4

----- OUTSTANDING EVENTS - SOLAR RADIATION AT 2800 MHZ ** -----								
DATE	KEY	CLASS	START U.T.	MAXIMUM U.T.	DURATION	PEAK FLUX	MEAN FLUX	
-----			-----					
May			HOURS	HOURS	MINUTES			
07	4	S/F Simple II F	1456.3	1459.0	6.5	26.3	3	
	Z 4	S/F Simple II F	2038.3	2127.6	146	119	28	
	@ 3	S Simple II A	2155.6	2200.9	38.1	89.2	26	
11	Z 22	GRF Simple III GRF F	2122	2149.5	154	11.8	6	
	3 4	S/F Simple II F A	2154.1	2154.9	5.5	10.7	3	
	@ 4	S/F Simple II F A	2200.6	2202.8	3.4	4.4	1	
14	Z 4	S/F Simple II F	2158.9	2205.2	10.4	81.4	24	
	3 29	PBI P.B.Increase	2209	2209	>180	11.8	8	
	@ 4	S/F Simple II F A	2240	incomp	41	>316	----	
27	Z 3	S Simple II	1744.2	1747.8	6.8	65.5	14	
	@ 29	PBI P.B.Increase	1751	1815	227	8.1	4	
28	Z 22	GRF Simple III GRF F	2034.5	2054	254	14	8	
	@ 3	S Simple II A	2357.7	2359.1	3.3	6	2	

SUMMARY OF AVERAGE SOLAR AND GEOPHYSICAL INDICES FOR MAY 1993

(Based on SGDB data released by the S.T.D.)

10.7 cm Solar Radio Flux: 112.33
 Sunspot Number: 79.06
 Boulder A-Index: 10.39
 Planetary A-Index: 12.61
 Background X-Ray Flux (1-8A): B3.03

Proton Fluence at > 1 MeV: 1.2889e+06
 Total (non-averaged) Fluence at > 1 MeV: 3.9955e+07
 Proton Fluence at > 10 MeV: 1.5258e+04
 Total (non-averaged) Fluence at > 10 MeV: 4.7300e+05

Average Daily Deviation of the Boulder Magnetometer: 20.87 nT

Short Wave Fadouts (SWFs): 0.23
Total Number of SWFs during Interval: 7
SWF Durations: 5.94 minutes
Total Duration of SWFs during Interval: 184 minutes

Average Daily X-Ray Flux: B6.06
Average Neutron Counts: +0.29%
Average Daily PCA: -0.00 dB

** End of Monthly Report **

End of Info-Hams Digest V93 #795
